Remarks

This Application has been carefully reviewed in light of the Office Action mailed August 13, 2002. Applicant believes all previously pending claims are allowable over the prior art of record. However, to advance this case expeditiously to issuance, clarifying amendments have been made to Claims 1, 6-11, 18, 23-28, 30 and 32, and Claims 5, 12, 22 and 29 have been canceled without prejudice or disclaimer. These amendments have not narrowed at least Claims 6-9, 23-28 and 30 and are not considered necessary for patentability. New Claims 33-43 have been added. Applicant respectfully requests reconsideration and favorable action in this case.

Independent Claims 1, 18 and 32 are Allowable

The Examiner rejects Claims 1-16, 18-30, and 32 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,256,676 to Taylor et al. ("*Taylor*"). Applicant respectfully traverses.

Independent Claim 1 of the present application, as amended, recites in part:

> a change retrieval engine . . . operable to:
> determine that data in the database managed by the data management system has been changed;
> receive information from the data management system identifying a particular business object with which the changed data is associated;
> access a data model specifying, for each of a plurality of business objects including the particular business object, references to one or more tables managed by the data management system that include data related to the business object;
> identify according to the data model the tables specified for the particular business object to identify data to be retrieved from the database using the data management system according to the received information;
> request from the data management system the data to be retrieved included in the tables identified according to the data model;
> receive the data from the data management system . . .

Independent Claims 18 and 32, as amended, recite substantially similar limitations. *Taylor* does not disclose, teach, or suggest at least these limitations, whether *Taylor* is considered alone or in combination with any other cited reference. For example, *Taylor* fails

to disclose, teach or suggest "a change retrieval engine . . . operable to . . . access a data model specifying, for each of a plurality of business objects . . . references to one or more tables managed by the data management system that include data related to the business object," as recited in Claim 1 as amended.

Taylor discloses a number of source adapters 731, each connected to an enterprise application 710 and operable to extract data from that enterprise application 710 based on a message definition object 713 assigned to the source adapter 731. (Column 16, Lines 8-11; Column 17, Lines 55-58). Each message definition object 713 identifies data to be extracted from or propagated to an enterprise application 710, as well as how to construct a system message from such data. (Column 15, Lines 51-56). Figure 9 of *Taylor* discloses the schema, or diagrammatic outline, of such a message constructed by a message definition object 713. According to *Taylor*, a message schema 900 comprises one or more sections 920, tables 940 and items 960. Sections 920 and tables 940 include message items 960, which contain the actual data (such as street name, city name, state, and zip code for a particular customer) of the message. (Column 17, Lines 19-40; Figure 9).

Thus, it should be understood that the message schema 900 shown in Figure 9 is an outline of a *message* constructed by a message definition object 713, and clearly does not "specify[], for each of a plurality of business objects . . . references to tables managed by [a] data management system that include data related to the business object," as recited in Claim 1 as amended. Although message schema 900 includes "tables 940," such tables 940 are not "references to tables managed by [a] data management system" from which data may be requested and received," as recited in Claim 1. Rather, tables 940 disclosed by *Taylor* are groups of message elements 960 that actually contain the data of a message. (Column 17, Lines 32-36).

In addition, although *Taylor* discloses that message definition objects 713 identify data to be extracted from or propagated to particular enterprise applications 710 (as discussed above), nowhere does *Taylor* disclose, teach or suggest that message definition objects 713 "specify[], for each of a plurality of business objects . . . references to one or more tables

managed by the data management system that include data related to the business object," as recited in Claim 1 as amended.

As another example, *Taylor* fails to disclose, teach or suggest a change retrieval engine operable to "receive information from the data management system identifying a particular business object with which the changed data is associated," "identify according to the data model the tables specified for the particular business object to identify data to be retrieved from the database using the data management system according to the received information" and "request from the data management system the data to be retrieved included in the tables identified according to the data model," as recited in Claim 1 as amended. *Taylor* discloses a source adapter 731 connected to an enterprise application 710. The source adapter 731 may be notified by the enterprise application 710 of an event, extract data relating to the event, and construct a system message based on the message definition object 713 assigned to that source adapter 731. (Column 17, Lines 55-58; Column 18, Lines 13-18). However, *Taylor* fails to disclose, teach or suggest identifying, according to a data model, tables specified for a particular business object and requesting data included in those tables from a data management system. As discussed above, "tables 940" disclosed by *Taylor* cannot be equated with the "tables" recited in Claim 1. Moreover, even assuming for the sake of argument that the "tables 940" disclosed by *Taylor* could be equated with the "tables" recited in Claim 1, and that an "enterprise application 710" of *Taylor* could be equated with a "data management system" of Claim 1, *Taylor* would still fail to disclose, teach or suggest requesting data from *any* tables managed by an enterprise application 710, much less tables specified for a particular business object by a data model. Thus, *Taylor* would still fail to disclose, teach or suggest a change retrieval engine operable to "identify according to the data model the tables specified for the particular business object to identify data to be retrieved from the database using the data management system according to the received information" and "request from the data management system the data to be retrieved included in the tables identified according to the data model," as recited in Claim 1 as amended.

For at least the reasons given above, Claim 1 is allowable over *Taylor*. Independent Claims 18 are 32 are also allowable over *Taylor* for analogous reasons. Thus, Applicant

respectfully requests reconsideration and allowance of independent Claims 1, 18 and 32, together with all claims that depend from Claims 1, 18 and 32.

Dependent Claims 2-4, 6-11, 13-17, 19-21, 23-28 and 30-31 are Allowable

In addition to being dependent on Claims 1, 18 and 32, which Applicant has shown to be allowable, Claims 2-4, 6-11 and 13-17 which depend from Claim 1, and Claims 19-21, 23-28 and 30-31 which depend from Claim 18, contain further patentable distinctions over the prior art of record.

For example, Claim 8, as amended, recites "the change retrieval engine is further operable to receive one or more key values from the data management system, each key value identifying an instance of the particular business object for which data was changed." Claim 25, as amended, recites substantially similar limitations. *Taylor* does not disclose, teach, or suggest these limitations, whether *Taylor* is considered alone or in combination with any other cited reference. According to the Examiner, *Taylor* discloses these limitations at Column 15, Lines 50-55. (Office Action, Page 5). However, this portion of *Taylor*, as well as the remainder of *Taylor*, fails to disclose, teach or suggest anything regarding key values identifying an instance of a business object, much less key values identifying an instance of a business object for which data was changed, or receiving such key values from a data management system. In particular, message definition objects 713 disclosed by *Taylor* cannot be equated with the "key values" recited in Claim 1. First, *Taylor*'s message definition objects 713 do not "identify[] an instance of the particular business object for which data was changed," as recited in Claim 1. Second, message definition objects 713 are not received from a data management system, even assuming for the sake of argument that an enterprise applications 710 of *Taylor* could be equated with the "data management system" recited in Claim 1. Rather, *Taylor* discloses that message definition objects 713 are assigned to source adapters 731, which are connected to enterprise applications 710. (Column 16, Lines 41-42; Column 17, Lines 55-56). Thus, for at least these reasons, *Taylor* fails to disclose, teach, or suggest "the change retrieval engine is further operable to receive one or more key values from the data management system, each key value identifying an instance of the particular business object for which data was changed," as recited in Claim 8 as amended.

In addition, Claims 9 and 26, as amended, are also allowable for at least the reasons discussed above regarding Claims 8 and 25. Claim 9, as amended, recites "the change retrieval engine is further operable to request data from the tables that are associated with one or more instances of the particular business object, the instances of the particular business object identified by one or more key values received from the data management system." Claim 26, as amended, recites substantially similar limitations. As discussed above, *Taylor* does not disclose teach or suggest anything regarding key values identifying instances of a business object, much less key values identifying instances of a business object for which data was changed, or such key values received from a data management system. Thus, for at least this reason, *Taylor* fails to disclose, teach, or suggest all of the limitations of Claims 9 or 26 as amended.

As another example, Claim 10, as amended, recites "the change retrieval engine is further operable to: apply field reductions to the tables identified according to the data model, the field reductions indicating one or more fields of the tables containing desired data; and request from the data management system data from the fields indicated as containing desired data." Claim 27, as amended, recites substantially similar limitations. *Taylor* does not disclose, teach, or suggest these limitations, whether *Taylor* is considered alone or in combination with any other cited reference. *Taylor* discloses a filter definition object 719 that defines criteria used for filtering unwanted system messages out of integration flows 700. (Column 15, Lines 61-63). For example, a filter definition object 719 may be used to filter out system messages about particular customers. (Column 15, Lines 63-67). Thus, *Taylor* discloses filtering unwanted *messages* from integration flows. However, nowhere does *Taylor* disclose, teach or suggest "field reductions indicating one or more *fields* of the tables containing desired data" and a change retrieval engine operable to "request from [a] data management system data from the *fields* indicated as containing desired data," as recited in Claim 10 as amended.

In addition, Claims 11 and 28, as amended, are allowable for similar reasons. Claim 11, as amended, recites "the change retrieval engine is further operable to: apply field filters to the tables identified according to the data model, the field filters indicating the desired data in the tables; and request from the data management system the desired data." Claim 28, as

amended, recites substantially similar limitations. As discussed above, *Taylor* discloses filtering unwanted *messages* from integration flows. Nowhere does *Taylor* disclose, teach or suggest "field filters indicating the desired data in the tables" and a change retrieval engine operable to "request from [a] data management system the desired data," as recited in Claim 11 as amended. Thus, for at least this reason, *Taylor* fails to disclose, teach, or suggest all of the limitations of Claims 11 or 28 as amended.

As another example, Claim 13 recites "the change retrieval engine is further operable to: access a distribution model to determine one or more serialization groups into which the data identified by the data model is to be divided; and store the data received from the data management system in the data log according to the serialization groups." Claim 30, as amended, recites substantially similar limitations. *Taylor* does not disclose, teach, or suggest these limitations, whether *Taylor* is considered alone or in combination with any other cited reference.

First, *Taylor* fails to disclose, teach or suggest anything operable to "access a distribution model to determine one or more serialization groups into which the data identified by the data model is to be divided." *Taylor* merely discloses a source adapter 731 operable to receive notification that a particular type of event has occurred, extract data relating to the event, construct a system message from the data using a message definition 713, and send the message to one or more target integration objects 730, such as a message hub 735 or a transformer 738. (Column 18, Lines 13-18). In addition, the Examiner points to Column 4, Lines 40-49 of *Taylor* as disclosing these limitations. However, this portion of *Taylor* merely states that a business transaction is made up of several units of work and that each unit of work must be completed in order for the transaction to occur; if any unit of work fails, the entire transaction fails. (Column 4, Lines 40-49). Thus, this portion of *Taylor* discloses nothing about serialization groups into which data identified by a data model is divided. Indeed, nowhere does *Taylor* disclose, teach or suggest anything about serialization groups into which data identified by a data model is divided, much less that any component (including source adapters 731, message hubs 735 or transformers 738) is operable to "access a distribution model to determine one or more serialization groups into which the data identified by the data model is to be divided," as recited in Claim 13.

Second, *Taylor* fails to disclose, teach or suggest anything operable to "store the data received from the data management system in the data log according to the serialization groups." *Taylor* merely discloses message hubs 735 used to receive system messages from source integration objects 730 (such as an adapter 731, a transformer 738, or another message hub 735) and to hold the received messages until the system 100 can deliver them to one or more target integration objects 730. (Column 16, Lines 1-4 and 20-23). In addition, the Examiner points to Column 4, Lines 40-49 and Column 14, Lines 53-62 of *Taylor* as disclosing these limitations. However, as discussed above, Column 4, Lines 40-49 of *Taylor* discloses nothing about serialization groups into which data identified by a data model is divided. Column 14, Lines 53-62 of *Taylor* merely discloses that system services include a monitor service 540 that stores system runtime data, including system logs and statistic information. Although this identified language mentions a "system log," nowhere does *Taylor* disclose, teach or suggest storing data received from a data management system in this system log "according to the serialization groups," as recited in Claim 13. Thus, for at least these reasons, *Taylor* fails to disclose, teach, or suggest anything operable to "store the data received from the data management system in [a] data log according to the serialization groups," as recited in Claim 13.

For at least these reasons, Applicant requests reconsideration and allowance of dependent Claims 2-4, 6-11, 13-17, 19-21, 23-28 and 30-31.

Dependent Claims 17 and 31 are Allowable

The Examiner rejects Claims 17 and 31 under 35 U.S.C. § 103(a) as being unpatentable over *Taylor* and further in view of U.S. Patent No. 6,308,178 to Chang et al. ("*Chang*"). Claims 17 and 31 are allowable at least because they depend from independent Claims 1 and 18, respectively, which have been shown above to be allowable. Applicant respectfully requests reconsideration and allowance of Claims 17 and 31. If the Examiner maintains the rejection of Claims 17 and 31, Applicant reserves the right to provide more detailed remarks concerning the allowability of Claims 17 and 31.

New Claims 33-43 are Allowable

New Claims 33-42 are directed to software, recite substantially similar limitations to Claims 1, 3-4, 7-11 and 13, and are allowable for at least the same reasons. New Claim 43 is directed to a system, recites substantially similar limitations to Claim 1, and is allowable for at least the same reasons. Therefore, Applicant respectfully requests consideration and allowance of Claims 33-43.

Conclusion

Applicant has made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicant respectfully requests full allowance of all pending claims.

If the Examiner believes a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Christopher W. Kennerly, Attorney for Applicant, at the Examiner's convenience at (214) 953-6812.

With the cancellation of four claims (Claims 5, 12, 22 and 29) and the addition of 11 new claims (Claims 33-43), a total of seven additional claims have been added, including two additional independent claims (Claims 33 and 43). Thus, a check in the amount of $348.00 is included to cover the cost of seven additional claims, including two additional independent claims. In addition, Applicant hereby takes an extension of time for responding to the Office Action dated August 13, 2002 for one (1) month from November 13, 2002 to December 13, 2002. A check in the amount of $110.00 is enclosed to cover said extension of time fee. The Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Applicant

Christopher W. Kennerly
Reg. No. 40,675

Correspondence Address:
2001 Ross Avenue, 6th Floor
Dallas, Texas 75201-2980
(214) 953-6812

Date: November 21, 2002

Appendix A

Mark-ups Reflecting Changes to the Specification

On Page 27, please replace the paragraph beginning at Line 2 with:

A system (10) for retrieving data from a database (22) using a data management system (20) includes a change retrieval engine (50) that is coupled to the data management system (20). The change retrieval engine (50) determines that data in the database (22) managed by the data management system (20) has been changed and receives information from the data management system (20) identifying one or more categories with which the changed data is associated. The change retrieval engine (50) also accesses a data model (54) to identify data to be retrieved from the database (22) using the data management system **(20) [(22)]** according to the received information. The data model (54) identifies data related to the categories. Furthermore, the change retrieval engine (50) requests the data identified by the data model (54) from the data management system (20) and receives the data from the data management system (20). The change retrieval engine (50) stores the data in a data log (74) and communicates a transfer command. The system also includes a change transfer engine (90) that is coupled to the change retrieval engine (50). The change transfer engine (90) receives the transfer command, obtains the data from the data log (74), and communicates the data to an external system (40).

Appendix B

Mark-ups Reflecting Changes to the Claims

SUB B17

1. **(Amended)** A system for retrieving data from a database using a data management system, comprising:

a change retrieval engine coupled to the data management system and operable to:

determine that data in the database managed by the data management system has been changed;

receive information from the data management system identifying **[one or more categories]** **a particular business object** with which the changed data is associated;

access a data model **specifying, for each of a plurality of business objects including the particular business object, references to one or more tables managed by the data management system that include data related to the business object;**

identify according to the data model the tables specified for the particular business object to identify data to be retrieved from the database using the data management system according to the received information**[, the data model identifying data related to the categories]**;

request **from the data management system** the data **to be retrieved included in the tables** identified **[by]** **according to** the data model **[from the data management system]**;

receive the data from the data management system;

store the data in a data log; and

communicate a transfer command; and

a change transfer engine coupled to the change retrieval engine and operable to:

receive the transfer command;

obtain the data from the data log; and

communicate the data to an external system.

2. The system of Claim 1, wherein:

the data management system comprises an enterprise resource planning (ERP) system; and

the external system comprises an external planning system.

3. The system of Claim 1, wherein the change retrieval engine is further operable to monitor the data management system to determine when a change document is created, the change document indicating that data managed by the data management system has been changed.

4. The system of Claim 1, wherein the change retrieval engine is further operable to receive a message from the data management system indicating that data managed by the data management system has been changed.

5. **Cancelled without prejudice or disclaimer.**

6. **(Amended)** The system of Claim 1 **[5]**, wherein the business objects are identified in the data model by a business object name.

7. **(Amended)** The system of Claim 1 **[5]**, wherein the business objects are identified in the data model by a name of a main table of data associated with the business object in the data management system.

8. **(Amended)** The system of Claim 1 **[5]**, wherein the change retrieval engine is further operable to receive one or more key values from the data management system, each key value identifying an instance of the **particular** business object for which data was changed.

9. **(Amended)** The system of Claim 1, wherein**[: the data model identifies one or more tables managed by the data management system from which to retrieve data; and]** the change retrieval engine is further operable to request data from the tables that **are [is]** associated with one or more instances of **[a] the particular** business object, the instances of the **particular** business object identified by one or more key values received from the data management system.

10. **(Amended)** The system of Claim 1, wherein**[: the data model identifies one or more tables managed by the data management system from which to retrieve data; and]** the change retrieval engine is further operable to**:**

apply field reductions to the **[data]** **tables** identified **[by]** **according to** the data model, the field reductions indicating one or more fields of the tables containing desired data**; and**

request from the data management system data from the fields indicated as containing desired data.

11. **(Amended)** The system of Claim 1, wherein**[: the data model identifies one or more tables managed by the data management system from which to retrieve data; and]** the change retrieval engine is further operable to**:**

apply field filters to the **[data]** **tables** identified **[by]** **according to** the data model, the field filters indicating the desired data in the tables**; and**

request from the data management system the desired data.

12. **Cancelled without prejudice or disclaimer.**

13. The system of Claim 1, wherein the change retrieval engine is further operable to:

access a distribution model to determine one or more serialization groups into which the data identified by the data model is to be divided; and

store the data received from the data management system in the data log according to the serialization groups.

14. The system of Claim 13, wherein the change retrieval engine is further operable to:

access the distribution model to determine destination information for one or more external systems to which the data in the serialization groups is to be communicated; and

store the destination information for the one or more external systems with the serialization groups in the data log.

15. The system of Claim 14, wherein the change transfer engine is further operable to communicate the serialization groups to the external systems identified by the destination information, the data in each serialization group communicated to the associated external system in an order that the data in the database was changed.

16. The system of Claim 13, wherein the change transfer engine is further operable to:

access the distribution model to determine destination information for one or more external systems to which the data in the serialization groups is to be communicated; and

communicate the serialization groups to the appropriate external systems using the destination information, the data in each serialization group communicated to the associated external system in an order that the data in the database was changed.

17. The system of Claim 1, wherein the change transfer engine is further operable to:

create an error log if data is not communicated to an external system;

receive a second transfer command indicating additional data has been stored in the data log; and

communicate the data associated with the error to the external system before communicating the additional data to the external system.

18. **(Amended)** A method for retrieving data from a database using a data management system, comprising:

determining that data in the database managed by the data management system has been changed;

receiving information from the data management system identifying **[one or more categories]** **a particular business object** with which the changed data is associated;

accessing a data model **specifying, for each of a plurality of business objects including the particular business object, references to one or more tables managed by the data management system that include data related to the business object;**

identifying according to the data model the tables specified for the particular business object to identify data to be retrieved from the database using the data management system according to the received information**[, the data model identifying data related to the categories]**;

requesting **from the data management system** the data **to be retrieved included in the tables** identified **[by]** **according to** the data model **[from the data management system]**; and

communicating the data to an external system.

19. The method of Claim 18, wherein:

the data management system comprises an enterprise resource planning (ERP) system; and

the external system comprises an external planning system.

20. The method of Claim 18, wherein determining that data managed by the data management system has been changed comprises monitoring the data management system to determine when a change document is created, the change document indicating that data managed by the data management system has been changed.

21. The method of Claim 18, wherein determining that data managed by the data management system has been changed comprises receiving a message from the data management system indicating that data managed by the data management system has been changed.

22. **Cancelled without prejudice or disclaimer.**

23. **(Amended)** The method of Claim **18** **[22]**, wherein the business objects are identified in the data model by a business object name.

24. **(Amended)** The method of Claim **18** **[22]**, wherein the business objects are identified in the data model by a name of a main table of data associated with the business object in the data management system.

25. **(Amended)** The method of Claim **18** **[22]**, further comprising receiving one or more key values from the data management system, each key value identifying an instance of the **particular** business object for which data was changed.

26. **(Amended)** The method of Claim 18, wherein**[: the data model identifies one or more tables managed by the data management system from which to retrieve data;]** the method further comprises:

receiving one or more key values from the data management system, the key values identifying instances of **[a]** **the particular** business object; and

requesting the data identified by the data model comprises requesting data from the tables that are associated with one or more instances of the **particular** business object.

27. **(Amended)** The method of Claim 18, wherein**[: the data model identifies one or more tables managed by the data management system from which to retrieve data; and]** the method further comprises applying field reductions to the tables identified **[by]** **according to** the data model, the field reductions indicating one or more fields of the tables from which to request data from the data management system.

28. **(Amended)** The method of Claim 18, wherein**[: the data model identifies one or more tables managed by the data management system from which to retrieve data; and]** the method further comprises applying field filters to the tables identified **[by]** **according to** the data model, the field filters indicating the relevant data in the tables to be requested from the data management system.

29. **Cancelled without prejudice or disclaimer.**

30. **(Amended)** The method of Claim 18, further comprising:

accessing a distribution model to determine one or more serialization groups into which the data identified by the data model is to be divided;

[access] **accessing** the distribution model to determine destination information for one or more external systems to which the data in the serialization groups is to be communicated; and

communicating the serialization groups to the external systems identified by the destination information, the data in each serialization group communicated to the associated external system in an order that the data in the database was changed.

31. The method of Claim 18, further comprising:

creating an error log if data is not communicated to an external system; and

communicating the data associated with the error to the external system before communicating additional data received from the data management system to the external system.

32. **(Amended)** A system for retrieving data from a database using a data management system, comprising:

a database operable to store data;

a data management system operable to access and change the data in the database; and

a data access interface system operable to:

receive information from the data management system identifying **[one or more categories]** **a particular business object** with which the changed data is associated;

access a data model **specifying, for each of a plurality of business objects including the particular business object, references to one or more tables managed by the data management system that include data related to the business object;**

identify according to the data model the tables specified for the particular business object to identify data to be retrieved from the database using the data management system according to the received information**[, the data model identifying data related to the categories]**;

request **from the data management system** the data **to be retrieved included in the tables** identified **[by]** **according to** the data model **[from the data management system]**; and

communicate the data to an external system.

33. **(New)** Software for retrieving data from a database using a data management system, the software being embodied in computer-readable media and when executed operable to:

determine that data in the database managed by the data management system has been changed;

receive information from the data management system identifying a particular business object with which the changed data is associated;

access a data model specifying, for each of a plurality of business objects including the particular business object, references to one or more tables managed by the data management system that include data related to the business object;

identify according to the data model the tables specified for the particular business object to identify data to be retrieved from the database using the data management system according to the received information;

request from the data management system the data to be retrieved included in the tables identified according to the data model;

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receive the requested data from the data management system; and

communicate the received data to an external system.

34. **(New)** The software of Claim 33, further operable to monitor the data management system to determine when a change document is created, the change document indicating that data managed by the data management system has been changed.

35. **(New)** The software of Claims 33, further operable to receive a message from the data management system indicating that data managed by the data management system has been changed.

36. **(New)** The software of Claims 33, wherein the business objects are identified in the data model by a name of a main table of data associated with the business object in the data management system.

37. **(New)** The software of Claims 33, further operable to receive one or more key values from the data management system, each key value identifying an instance of the particular business object for which data was changed.

38. **(New)** The software of Claims 33, further operable to request data from the tables that are associated with one or more instances of the particular business object, the instances of the particular business object identified by one or more key values received from the data management system.

39. **(New)** The software of Claims 33, further operable to:

apply field reductions to the tables identified according to the data model, the field reductions indicating one or more fields of the tables containing desired data; and

request from the data management system data from the fields indicated as containing desired data.

40. **(New)** The software of Claims 33, further operable to:

apply field filters to the tables identified according to the data model, the field filters indicating the desired data in the tables; and

request from the data management system the desired data.

41. **(New)** The software of Claims 33, further operable to:

access a distribution model to determine one or more serialization groups into which the data identified by the data model is to be divided; and

store the data received from the data management system in the data log according to the serialization groups.

42. **(New)** The software of Claims 33, further operable to:

create an error log if data is not communicated to an external system;

receive a second transfer command indicating additional data has been stored in the data log; and

communicate the data associated with the error to the external system before communicating the additional data to the external system.

43. **(New)** A system for retrieving data from a database using a data management system, comprising:

means for determining that data in the database managed by the data management system has been changed;

means for receiving information from the data management system identifying a particular business object with which the changed data is associated;

means for accessing a data model specifying, for each of a plurality of business objects including the particular business object, references to one or more tables managed by the data management system that include data related to the business object;

A5

means for identifying according to the data model the tables specified for the particular business object to identify data to be retrieved from the database using the data management system according to the received information;

means for requesting from the data management system the data to be retrieved included in the tables identified according to the data model;

means for receiving the requested data from the data management system; and

means for communicating the received data to an external system.